

IN THE CLAIMS:

Please delete claims 1-45 without prejudice or disclaimer and add the following new claims:

- --46. A complex comprising a peptide or peptide derivative derived from glutamic acid decarboxylase which is bound to an allele or a peptide-binding derivative of MHC class II molecules DR3 or DR4, wherein the peptide or peptide derivative has a length of at most 25 amino acids and comprises
- (a) a peptide of at least 6 amino acids of an amino acid sequence selected from the group consisting of SEQ ID NOS: 2\(3 \) and 19-39, or
- (b) a peptide or peptide derivative having a length of 6 to 25 amino acids which exhibits a specificity or/and affinity which is essentially equivalent to that of the peptide (a) and includes anchor positions for binding to alleles or peptide-binding derivatives of MHC class II molecules DR3 or DR4.
- 47. The complex of claim 46, wherein the MHC class II molecules have the subtype DR B1 0301 or DR B1 0401.
- 48. The complex of claim 46, wherein the MHC class II molecules are recombinant MHC class II molecules.
- 49. The complex of claim 46, wherein the peptide or peptide derivative is bound to a soluble peptide-binding derivative of MHC class II molecules DR3 or DR4.

- 50. The complex of claim 46, wherein the complex carries a marker group.
- 51. The complex of claim 46, wherein the peptide (a) includes anchor positions for binding to alleles or peptide-binding derivatives of MHC class II molecules DR3 or DR4.
 - 52. The complex of claim 46, wherein the peptide or peptide derivative comprises
- (a) a peptide of at least 6 amino acids of an amino acid sequence selected from the group consisting of SEQ ID NO: 2 and SEQ ID NO: 3, or
- (b) a peptide or peptide derivative having a length of 6 to 25 amino acids which exhibits a specificity or/and affinity which is essentially equivalent to that of the peptide (a) and includes anchor positions for binding to alleles of MHC class II molecules DR3 or DR4.
- 53. The complex of claim 46, wherein the peptide or peptide derivative comprises at least 8 amino acids.
- 54. The complex of claim 46, wherein the peptide or peptide derivative comprises at least 10 amino acids.
- 55. The complex of claim 46, wherein the peptide or peptide derivative carries a marker group.
- 56. A pharmaceutical composition, comprising a complex as claimed in claim 46, in combination with a pharmaceutically acceptable carrier.

- 57. The pharmaceutical composition of claim 56, further comprising an accessory stimulating component.
- 58. The pharmaceutical composition of claim 57, wherein the accessory stimulating component is a cytokine, surface antigen B7, or both.
- 59. A method of treating or preventing an autoimmune disease in a patient in need of such treatment or prevention, comprising administering to the patient a disease-treating or disease-preventing, respectively, effective amount of a complex as claimed in claim 46.
- 60. A method of treating or preventing diabetes in a patient in need of such treatment or prevention, comprising administering to the patient a disease-treating or disease-preventing, respectively, effective amount of a complex as claimed in claim 46.

11

- 61. A method of causing an immune response or an immune tolerance in a patient, comprising administering to the patient an immune response-causing or immune tolerance-causing, respectively, amount of a complex as claimed in claim 46.
- 62. An oligomerized peptide or peptide derivative/MHC molecule or MHC molecule derivative complex comprising (1) at least one peptide or peptide derivative and (2) at least two MHC molecules or peptide-binding MHC molecule derivatives, wherein the

at least two MHC molecules or MHC molecule derivatives are (a) directly linked to each other, wherein the at least one peptide or peptide derivative is linked to at least one of the at least two MHC molecules or MHC molecule derivatives, or (b) indirectly linked to each other via a direct or indirect linking to the at least one peptide or peptide derivative.

- 63. The oligomerized complex of claim 62, wherein the oligomerized complex comprises a plurality of chemically coupled peptide or peptide derivative/MHC molecule or MHC molecule derivative complex monomers.
- 64. The oligomerized complex of claim 62, wherein the at least one peptide or peptide derivative contains at least two MHC-binding regions and the at least two MHC molecules or MHC molecule derivatives are bound to the peptide or peptide derivative via the MHC-binding regions.
- 65. The oligomerized complex of claim 64, wherein the at least two MHC-binding regions are indirectly linked to each other and are separated from one another on the at least one peptide or peptide derivative by a spacer region.
- 66. The oligomerized complex of claim 65, wherein the spacer region comprises 10-15 amino acids.
- 67. The oligomerized complex of claim 62, wherein the oligomerized complex comprises a plurality of peptide or peptide derivative/MHC molecule or MHC molecule derivative complex monomers which are linked to each other via antibodies.

- 68. The oligomerized complex of claim 62, wherein the at least two MHC molecules or MHC molecule derivatives are MHC class II molecules or derivatives thereof.
- 69. The oligomerized complex of claim 68, wherein the MHC class II molecules or derivatives thereof are MHC class II molecules DR3 or DR4 or derivatives thereof.
- 70. The oligomerized complex of claim 69, wherein the MHC class II molecules DR3 or DR4 or derivatives thereof have the subtype DR B1 0301 or DR B1 0401.
- 71. The oligomerized complex of claim 62, wherein the at least two MHC molecules or MHC molecule derivatives are recombinant molecules.
- 72. The oligomerized complex of claim 62, wherein the oligomerized complex comprises at least one soluble peptide-binding MHC molecule derivative.
- 73. The oligomerized complex of claim 62, wherein the at least one peptide or peptide derivative has a length of at most 25 amino acids and comprises
- (a) a peptide of at least 6 amino acids of an amino acid sequence selected from the group consisting of SEQ ID NOS: 2, 3 and 19-39, or
- (b) a peptide or peptide derivative having a length of 6 to 25 amino acids which exhibits a specificity or/and affinity which is essentially equivalent to that of the peptide (a) and includes anchor positions for binding to alleles or peptide-binding derivatives of MHC class II molecules DR3 or DR4.

- 74. A pharmaceutical composition, comprising an oligomerized complex as claimed in claim 62, in combination with a pharmaceutically acceptable carrier.
- 75. The pharmaceutical composition of claim 74, further comprising an accessory stimulating component.
- 76. The pharmaceutical composition of claim 75, wherein the accessory stimulating component is a cytokine, surface antigen B7, or both.
- 77. A method of treating or preventing an autoimmune disease in a patient in need of such treatment or prevention, comprising administering to the patient a disease-treating or disease-preventing, respectively, effective amount of an oligomerized complex as claimed in claim 62.
- 78. A method of treating or preventing diabetes in a patient in need of such treatment or prevention, comprising administering to the patient a disease-treating or disease-preventing, respectively, effective amount of an oligomenized complex as claimed in claim 62.
- 79. A method of causing an immune response or an immune tolerance in a patient, comprising administering to the patient an immune response-causing or immune tolerance-causing, respectively, amount of an oligomerized complex as claimed in claim 62.--